

REMARKS

As a preliminary matter, with regard to the drawings, Applicants have included herewith a marked-up copy of Figure 1, with the proposed changes in red. As can be seen from the proposed changes, Applicants have added index number 1, as suggested by the Examiner. Approval of the proposed drawing changes is respectfully requested. Withdrawal of the objection to the drawings is respectfully requested.

The Specification has been amended as suggested by the Examiner on page 2 of the December 27, 2006 Office Action. Withdrawal of the objection to the Specification is respectfully requested.

Claims 1 and 2 stand rejected under 35 U.S.C. §103 as being unpatentable over United States Patent No. 6,463,974 to Hellweg et al. in view of United States Patent No. 4,823,854 to Payne et al. Applicants have cancelled Claim 2, without prejudice, and have added the subject matter of Claim 2 into Claim 1. Accordingly, the rejection of Claim 2 has been rendered moot. However, with respect to Claim 1, Applicants respectfully traverse this rejection.

Applicants respectfully submit that the cited references fail to disclose or suggest all of the features of amended Claim 1. More specifically, as correctly acknowledged by the Examiner on page 4 (paragraph 5, lines 3-4) of the December 27, 2006 Office Action, the Hellweg et al. reference and the Payne et al. reference fail to disclose or suggest that the claimed annular shell is composed of metal with a yield strength of 400 MPa or more. Thus

for at least this reason, Applicants respectfully request the withdrawal of this §103 rejection of amended independent Claim 1.

Claims 3 and 4 stand rejected under 35 U.S.C. §103 as being unpatentable over Hellweg et al. in view of Payne et al. and further in view of United States Patent No. 7,100,654 to Boiocchi et al. Applicants have cancelled Claim 3, without prejudice, and have added the subject matter of Claim 3 into Claim 1. Accordingly, the rejection of Claim 3 has been rendered moot, and Applicants will traverse this rejection as it would apply to amended Claim 1.

Applicants respectfully submit that the cited references fail to disclose or suggest all of the claimed features of amended independent Claim 1. More specifically, the cited references fail to disclose or suggest a tire wheel assembly in which, *inter alia*, the relationship $(W2-W1)/W1 = 0.02 \text{ to } 0.100$ is satisfied (assuming that W1 is an interval between abutting points where the pair of left and right elastic rings abut on the inner surface of the tire when the pneumatic tire and the run-flat support are mounted on the rim and W2 is an interval between the abutting points when the run-flat support is not mounted). Applicants' Figures 1 and 2 show the locations of widths W1 and W2. Applicants also traverse this rejection because the cited references fail to disclose or suggest the claimed tire wheel assembly that includes, *inter alia*, elastic rings with a JIS-A hardness of 50 to 65 and an annular shell composed of metal with a yield strength of 400 MPa or more, as recited in amended independent Claim 1.

Briefly, the present invention relates to a structure for enhancing the durability of run-flat driving. With the run-flat support of the present invention, such as, for example, shown in Applicants' Figures 1 and 2, elastic rings 5 attached to leg parts 4b abut on the tire inner surfaces at abutting points 5a, whereby they can be firmly seated on the tire inner surfaces, thereby enhancing run-flat durability, as disclosed in paragraph [0008] of the present Specification.

As correctly acknowledged by the Examiner, the Hellweg et al. reference fails to disclose or suggest the claimed relationship of $(W2-W1)/W1 = 0.02$ to 0.100 . *See* December 27, 2006 Office Action, page 3, paragraph 4, lines 10-14. Accordingly, the Examiner relied upon the Payne et al. reference for this feature, wherein the Examiner asserted that column 13, lines 38-55 of Payne et al. disclose that $W1=6.96$ inches and $W2=7.08$ inches, resulting in $(W2-W1)/W1 = 0.0172$. *See* December 27, 2006 Office Action, page 3, paragraph 4, lines 15-17.

First of all, Applicants respectfully submit that the widths of 6.96 and 7.08 of Payne et al. asserted by the Examiner are not the same as the widths represented by $W1$ and $W2$ as defined in independent Claim 1. As shown in Applicants' Figures 1 and 2, and as recited in Claim 1, widths $W1$ and $W2$ are measured between the abutting portions of elastic rings when mounted ($W1$ of Figure 1) and when not mounted ($W2$ of Figure 2). In contrast, the values of 6.96 and 7.08 of Payne et al. are the widths between the outer edges of shell 60 (which is more similar to Applicants' shell 4 than to the claimed elastic rings), and not between the elastic rings. The Payne et al. reference fails to disclose or suggest the use of

elastic rings. Thus, because the intervals being measured in Payne et al. are different than those defined in Applicants Claim 1, Applicants respectfully submit that the claimed relationship of $(W2-W1)/W1 = 0.02$ to 0.100 defined in amended Claim 1 is not disclosed or suggested in Payne et al. Nor is it disclosed or suggested in any of the other cited references. Thus for at least this reason, Applicants respectfully request the withdrawal of this §103 rejection of independent Claim 1 and associated dependent Claim 4.

Second, even assuming *arguendo* that Applicants agreed that the Examiner's proposed combination was obvious, and that the asserted relationship of $(W2-W1)/W1 = 0.0172$ resulted because the intervals for W1 and W2 asserted by the Examiner were equivalent to the claimed intervals W1 and W2, such a combination still fails to read on the claimed relationship of amended Claim 1. This is the case because amended Claim 1 now recites that $(W2-W1)/W1 = 0.02$ to 0.100 , and the Examiner's asserted value of 0.0172 does not fall within the claimed range of 0.02 to 0.100 . Further, the Boiocchi et al. reference does not disclose or suggest this feature either, nor was it relied upon by the Examiner for this feature. Accordingly for at least this reason also, Applicants respectfully request the withdrawal of this § 103 rejection of amended independent Claim 1 and associated dependent Claim 4.

Third, the Examiner has not provided any evidence that the claimed JIS-A hardness of 50 to 65 for the elastic rings, as recited in amended Claim 1, is obvious. Instead, the Examiner has merely asserted the obviousness of this feature, without providing any support for the assertion. See December 27, 2006 Office Action, page 4, lines 3-7.

Accordingly, since the required *prima facie* case of obviousness has not been made for this feature, Applicants respectfully request the withdrawal of this §103 rejection of independent Claim 1 and associated dependent Claim 4 for this reason also.

Finally, Applicants also respectfully submit that the §103 rejection should be withdrawn because the proposed combination also lacks the claimed annular shell that is composed of a metal with a yield strength of 400 MPa or more, as now defined in independent Claim 1. As correctly acknowledged by the Examiner, the Hellweg et al. reference and the Payne et al. reference both fail to disclose or suggest this feature. *See* December 27, 2006 Office Action, page 5, paragraph 5, lines 3-4. Accordingly, the Examiner relied upon the Boiocchi et al. reference for this feature. *See* December 27, 2006 Office Action, page 4, paragraph 5, lines 5-10.

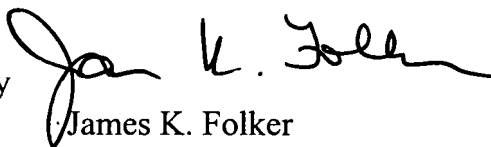
However, Applicants respectfully submit that the annular body 5 of Boiocchi et al. is not equivalent to the annular shell 3 of Hellweg et al., nor is it equivalent to the annular shell of the present invention. Accordingly, one of ordinary skill in the art would not have modified the shell 3 of Hellweg et al. based on annular body 5 of Boiocchi et al. More specifically, annular body member 5 of Boiocchi et al. is a toroid- or doughnut-shaped member formed by outer surface 7, inner surface 8 and side surfaces 9 and 10. Body member 5 encloses a filler 6 that is made of an expanded material. In contrast, annular shell 3 of Hellweg et al. is not doughnut- or toroid-shaped, but is instead merely a ring-shaped body with no inner surface. Further, annular shell 3 of Hellweg et al. lacks the filler 6 of Boiocchi et al. Accordingly, since the structural and operational features of body member 5 of

Boiocchi et al. are different from those of shell 3 of Hellweg et al., Applicants respectfully submit that one of ordinary skill in the art would not have used a feature of body member 5 of Boiocchi et al. (its material and yield strength) to modify shell 3 of Hellweg et al. Thus, for this reason also, Applicants respectfully request the withdrawal of this §103 rejection of independent Claim 1 and associated dependent Claim 4.

For all of the above reasons, Applicants request reconsideration and allowance of the claimed invention. Should the Examiner be of the opinion that a telephone conference would aid in the prosecution of the application, or that outstanding issues exist, the Examiner is invited to contact the undersigned attorney.

Respectfully submitted,

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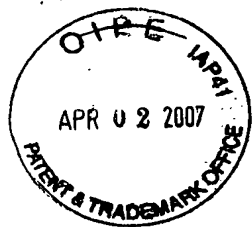


Fig.1

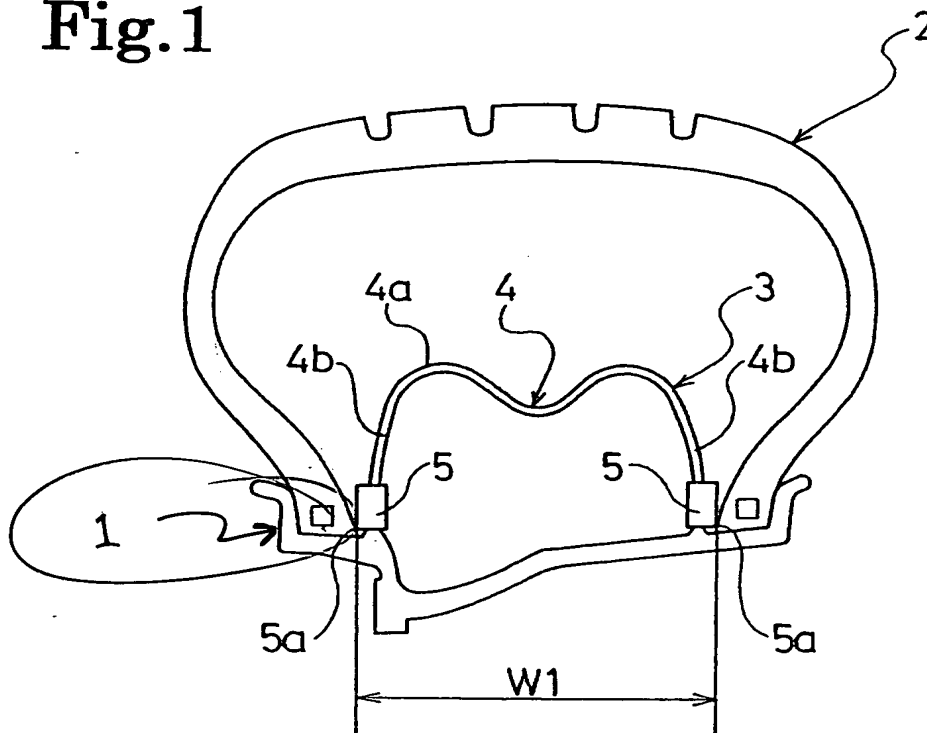


Fig.2

